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EXAMINER LANGMAN, JONATHAN C				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/599,950

**Applicant(s)**

GROCHAL, PETER

**Examiner**

JONATHAN C. LANGMAN

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-48 is/are pending in the application.
- 4a) Of the above claim(s) 43-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-42 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS-08)  
Paper No(s)/Mail Date 9/09/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-20 and 30-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takahashi et al. (wo/2003/102091) wherein (US 2005/0277543) is used as the English translation.

Regarding claims 15-18, 31-38 Takahashi teach a self cleaning coating (abstract) that comprises photocatalytic oxide particles and silica particles dispersed in a hydrophobic resin emulsion and water ([0033]). The photocatalytic oxide particles and the silica particles are less than 0.1 microns ([0040]). The hydrophobic resin (instantly claimed binding agent) is present in amounts of 5% by weight or more, or 10% by weight or more ([0047] and [0048]).

It is expected that since Takahashi teaches the same binding agent, a hydrophobic resin, as instantly claimed and taught (see instant specification page 8, [0023]), that the hydrophobic resin is capable of decomposing due at least in part by a photocatalytic action of the photocatalytically active agent, as presently claimed. Furthermore it is expected that the coating composition of Takahashi is capable of forming a microstructured, self cleaning surface that photocatalytically reduces by about

0.1 microns and by about 1 micron or more per year in response to external weathering, as well as the decomposition being equivalent to chalking level of 1 or less.

It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a *prima facie* case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 ( Fed. Cir. 1990). The ***prima facie*** case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

A material and its properties are inseparable. Since Takahashi teaches the same materials and the same coating composition as instantly claimed, it is expected and inherent that the coating composition of Takahashi will possess the same properties as instantly claimed, i.e. chalking and photocatalytic reduction rates.

Regarding claim 19, Takahashi teaches silicon resins ([0057] and [0083]) as suitable binders.

Regarding claim 20 and 30, the instantly claimed metal oxides are taught by Takahashi ([0081]).

Regarding claim 39, the applicant is not claiming a specific amount of filler, and therefore any amount can be considered excess. Excess is a descriptive term that can be interpreted to mean different amounts from application to application. Since

Takahashi teaches a filler, it is the Examiner position that this filler can be interpreted to be in excess to some degree.

Regarding claims 40 and 41, Takahashi teach adding a pigment (at least [0063]).

Regarding claim 42, Takahashi teaches the photocatalytic oxide is 1-20 percent by weight, and the filler (silica) is present in a mounts of 1-90 % by weight.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-23, 30-40, 42, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 6,337,129).

Regarding claims 15-18, 20, 30-33, and 36-38, Watanabe et al. teach a surface coating for coating facades and other building materials (col. 15, lines 41). The coating comprises a hydrophobic resin and a photocatalytic oxide (col. 11, lines 35-40). In addition the coating also comprises an inorganic oxide (col. 11, lines 54-60), wherein the inorganic oxide is preferably silica (col. 14, lines 4-12). The photocatalytic oxide comprises anatase titania (col. 12, lines 31-32 and col. 4, lines 46-47). Watanabe goes on to teach that the particle diameter of the photocatalytic oxide, and the inorganic oxide are both less than 0.1 microns (col. 14, lines 32-40).

Watanabe teach in preferred embodiments that the hydrophobic resin layer preferably comprises 20-50% by weight photocatalytic oxides, and further preferably comprises 5-55% by weight inorganic oxide particles. In view of the preferred embodiments of the above two components this leaves a remainder of hydrophobic binder in amounts of 0-75%. Watanabe further teaches that the amount of hydrophobic binder may be controlled as desired (col. 15, lines 1-10). It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of binder to include those amounts instantly claimed (i.e. 10-30%) for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It is expected that since Watanabe teaches the same binding agent, a hydrophobic resin, as instantly claimed and taught (see instant specification page 8, [0023]), that the hydrophobic resin is capable of decomposing due at least in part by a photocatalytic action of the photocatalytically active agent, as presently claimed. Furthermore it is expected that the coating composition of Watanabe is capable of forming a microstructured, self cleaning surface that photocatalytically reduces by about 0.1 microns and by about 1 micron or more per year in response to external weathering, as well as the decomposition being equivalent to chalking level of 1 or less.

It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a prima facie case of either anticipation or obviousness will be

considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 ( Fed. Cir. 1990). The ***prima facie*** case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

A material and its properties are inseparable. Since Watanabe teaches the same materials and the same coating composition as instantly claimed, it is expected and inherent that the coating composition of Watanabe will possess the same properties as instantly claimed, i.e. chalking and photocatalytic reduction rates.

In regards to claim 19, the first composition of Watanabe is used to reject the instantly claimed rejection. Watanabe teaches a surface layer comprising a silicone resin, and a photocatalytically active agent (col. 4, lines 1-5) with a particle size of less than 10 microns (col. 7, lines 1-5). In this case the photocatalytically active agent of Watanabe reads on the instantly claimed filler.

In regards to claims 21-23, since Watanabe is silent to doping the photocatalytically active agent it is expected that the photocatalytically active agent comprises 100% TiO<sub>2</sub>.

Regarding claims 34 and 35, Watanabe teaches that the silica can be provided as a sol. It is expected that the gel will crosslink during the setting of the coating composition and therefore will form a sol gel material. Furthermore, silica as a material is taught by Watanabe, and is claimed by the applicant. The product by process steps of obtaining the silica sol, are not given patentable weight since they do not provide a

patentable distinction of structural difference between the silica of Watanabe and the silica instantly claimed.

Regarding claims 39, the applicant has not defined what "excess" means. Excess compared to what? Watanabe teaches a filler so therefore it reads on the claim. Furthermore, Watanabe teaches that the filler is present at the surface of the coating in an exposed state (col. 12, lines 29-30 and col. 17, lines 20-30), which is construed by the examiner to be an excess amount of filler.

Regarding claims 40 and 41, Watanabe teaches adding additives to the coating compositions including accelerators, surfactants, thickeners and water (col. 10, lines 50-65).

In regards to the composition set forth in claims 42 and 48, the solvent, preservative and water are negligible since they are less than certain amounts and may be zero. None of the other materials instantly claimed are given specific materials, and rather are just referred to as generic terms from the art. For purposes of rejecting the claim, the Examiner breaks down the instantly claimed composition as follows:

The two fillers are linked together, giving a total possible amount of 7-60%. In the embodiment shown in Figure 4, Watanabe teaches that the filler is present in a preferable amount of 5-55% (col. 14, lines 50-55).

The Photocatalytic agent and the pigment are linked together, since, in the art it is known that  $\text{TiO}_2$  is a pigment, giving a total of 12-35% instantly claimed. Watanabe teaches that the photocatalytic agent,  $\text{TiO}_2$ , is present in an amount of 1-80% and preferably 20-50% (col. 14, lines 50-55).



The hydrophibization agent is linked with the hydrophobic binding agent, giving a total amount of 12-38% hydrophobic binder. In view of the preferred embodiments of the above two components this leaves a hydrophobic binder in amounts of 0-75%. Watanabe further teaches that the amount of hydrophobic binder may be controlled as desired (col. 15, lines 1-10). It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of binder for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

The remainder of the instantly claimed composition is a thickener of 0.1-1%, which the Examiner contends, for a routineer in the art, would have been an obvious addition, in the instantly claimed amounts, to the composition of Watanabe in order to obtain a desired consistency. The Examiner contends that a thickener in the instantly claimed amounts does not provide a patentable distinction over the layer taught by Watanabe..

Claims 15-20, 24, 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murasawa et al. (US 5,547,823) in view of Escaffre et al. (WO99/51345) wherein (US 2004/0204314) is used as an English Equivalent.

Regarding claims 15-20 and 31-38, Murasawa et al. teach a coating composition comprising a less degradative adhesive and photocatalyst particles (col. 5, lines 25-42).

The photocatalyst particles comprise oxides of iron, titanium, zinc, tungsten and the like, wherein titanium oxide is preferred (col. 3, lines 55-67). The less degradative adhesive comprises acryl modified silicone resin (col. 3, lines 50-55), a hydrophobic resin comprising silicone. Murasawa also teaches that the coating includes an adsorbent material which comprises silica sol gels (col. 4, lines 65-col. 5, lines 5). These silica sol gels read on the instantly claimed filler material.

Murasawa is silent to the binder being present in amounts of 10-30 weight percent. However this is an easily optimized characteristic that only involves routine skill in the art. Furthermore, the teachings of examples 1-4 provide binder amounts of (.80/11.76 or 6.8 weight percent; (2.36/11.23 or 21 weight percent); (2.7/12.05 or 21.6 weight percent; and (4.3/11.3 or 38.1%). Although these working examples do not include the adsorbent silica gel. These working examples would provide a routineer in the art a basis for determining an effective amount of binder to include amounts of 6.8 to 38 percent by weight. Thus determining an effective amount of binder to include those amounts instantly claimed (i.e. 10-30 % by weight) is well within the grasp of a routineer in the art and would have been an obvious modification depending upon the end use application of the coating.

Murasawa et al. do not teach the particle size of the photocatalytic particles ( $\text{TiO}_2$ ) or the particle size of the adsorbent material (silica sol gel).

Escaffre teach a photocatalytic composition comprising adsorbents and photocatalytic particles. The adsorbent is preferably silica sol gel and the photocatalytic particles are preferably  $\text{TiO}_2$ , both with particle sizes of less than 0.03 microns (US:

([0023]-[0031]) and FR (pg 4 lines 29- pg 5 line25). Escaffre teach that by using the colloidal dispersion of silica sol gel in these diameter ranges makes it possible to significantly improve the degree of adsorption of the polluting substances on the photocatalyzing agent as well as the efficiency of the photocatalysis.

It would have been obvious to a person having ordinary skill in the art at the time the present invention was made to use the particle sizes taught by Escaffre for the respective particles in the coating composition of Murasawa; as Escaffre has shown that these are known particles sizes and provide effective results as a coating and results in increased efficiency of photocatalysis. It has been shown that combining prior art elements according to known methods to yield predictable results is a basis for supporting a conclusion of obviousness (MPEP 2141 [R-6], KSR International Co. v. Teleflex Inc. (KSR), 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007)). Therefore using known particle sizes as taught by Escaffre for the particles of Murasawa would have been obvious to a routineer to obtain predictable results, i.e. an effective coating.

It is expected that since the combination of Murasawa et al. and Escaffre et al. teach the same binding agent, a hydrophobic resin, as instantly claimed, that the hydrophobic resin is capable of decomposing due at least in part by a photocatalytic action of the photocatalytically active agent. Furthermore since Murasawa and Escaffre teach the same coating composition and the same particle sizes that the coating is capable of forming a microstructured, self cleaning surface that photocatalytically reduces by about 0.1 microns and by about 1 micron or more per year in response to

external weathering, as well as the decomposition being equivalent to chalking level of 1 or less.

It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a *prima facie* case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 ( Fed. Cir. 1990). The *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

A material and its properties are inseparable. Since Murasawa and Escaffre et al. teach the same materials and the same coating composition as instantly claimed, it is expected and inherent that the coating composition of Murasawa and Escaffre et al. will possess the same properties as instantly claimed, i.e. chalking and photocatalytic reduction rates.

Regarding claim 24, Murasawa teach that the Titania photocatalyst particles may be doped with oxides and halogenides of Fe, Co, Ni, Cu, Zn, Ru, Pd, Ag, Pt, and Au (col. 3, lines 60-col.4, lines 10).

Regarding claim 30, Murasawa do not specify which crystallinity of Titanium dioxide is used as the photocatalytic agent. Escaffre teach that anatase titanium dioxide is preferred. It would have been obvious to a person having ordinary skill in the art at the time the present invention was made to use anatase titanium dioxide for

photocatalytic agent of Murasawa, as Escaffre has shown that this is a known and desired photocatalytic agent in the art. Simple substitution of one known element for another to obtain predictable results is sufficient to support a conclusion of obviousness (MPEP 2141 [R-6], KSR International Co. v. Teleflex Inc. (KSR), 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007)). Therefore it would have been obvious to substitute anatase  $\text{TiO}_2$  for the  $\text{TiO}_2$  of Murasawa to obtain predictable results of photocatalytic activity.

Regarding claims 39 and 41, Murasawa teaches that the coating compositions may be formulated with solvents such as water, as well as crosslinking agents, dispersants, and fillers (col. 5, lines 25-45), thereby showing an "excess" of fillers.

Regarding claim 40, pigments are known in the art and would have been obvious to apply to the coating composition of Murasawa in order to obtain a desired coating color (see at least the abstract of JP2001-040291).

Claims 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 6,337,129) as applied above to claims 15-23, 30-40 and 42, in view of Chopin et al. (US 6,037,289).

Watanabe teaches a coating composition comprising photocatalytic particles of  $\text{TiO}_2$ . Watanabe is silent to adding an additive to the  $\text{TiO}_2$  particles.

Chopin et al. teach a coating comprising photocatalytic particles of Titania. Chopin goes on to teach that in order to amplify the photocatalytic effect one can add catalysts and additives to the  $\text{TiO}_2$  particles (col. 4, lines 29-52). Chopin teaches

coating titanium dioxide particles with oxides of Fe, Cu, Ru, Ce, Mo, Bi, Ta, Nb, Co, Ni, W, Sn, Zr, Ca, and Zn, in amounts of 0.01-20% compared to the titanium dioxide particles.

It would have been obvious to a person having ordinary skill in the art at the time the present invention was made to dope the titanium dioxide particles of Watanabe with the metal oxides in their respective amounts as taught by Chopin in order to increase the photocatalytic effect of the titanium dioxide particles. These obvious compositional ranges taught by Chopin overlap those compositional ranges set forth in instantly claims 21-29.

Claims 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (wo/2003/102091) wherein (US 2005/0277543) is used as the English translation, as applied to claims 15-20 and 30-42 above, in view of Chopin et al. (US 6,037,289).

Takahashi teaches a coating composition comprising photocatalytic particles of TiO<sub>2</sub>. Takahashi is silent to adding an additive to the TiO<sub>2</sub> particles.

Chopin et al. teach a coating comprising photocatalytic particles of Titania. Chopin goes on to teach that in order to amplify the photocatalytic effect one can adding catalysts and additives to the TiO<sub>2</sub> particles (col. 4, lines 29-52). Chopin teaches coating titanium dioxide particles with oxides of Fe, Cu, Ru, Ce, Mo, Bi, Ta, Nb, Co, Ni, W, Sn, Zr, Ca, and Zn, in amounts of 0.01-20% compared to the titanium dioxide particles.

It would have been obvious to a person having ordinary skill in the art at the time the present invention was made to dope the titanium dioxide particles of Takahashi with the metal oxides in their respective amounts as taught by Chopin in order to increase the photocatalytic effect of the titanium dioxide particles. These obvious compositional ranges taught by Chopin overlap those compositional ranges set forth in instantly claims 21-29.

Claims 21-23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murasawa et al. and Escaffre et al., as applied above, in view of Chopin et al. (US 6,037,289).

Murasawa teach a coating composition comprising titanium dioxide particles. Murasawa teach doping the particles with metal oxides and metal halogenides of those metals instantly claimed. Murasawa is silent to the compositional proportions of these catalysts to the photocatalytic particle.

Chopin et al. teach a coating comprising photocatalytic particles of Titanium dioxide. Chopin goes on to teach that in order to amplify the photocatalytic effect one can adding catalysts and additives to the  $\text{TiO}_2$  particles (col. 4, lines 29-52). Chopin teaches coating titanium dioxide particles with oxides of Fe, Cu, Ru, Ce, Mo, Bi, Ta, Nb, Co, Ni, W, Sn, Zr, Ca, and Zn, in amounts of 0.01-20% compared to the titanium dioxide particles.

It would have been obvious to a person having ordinary skill in the art at the time the present invention was made to dope the titanium dioxide particles of Murasawa with

the metal oxides in their respective amounts as taught by Chopin in order to increase the photocatalytic effect of the titanium dioxide particles. These obvious compositional ranges taught by Chopin overlap those compositional ranges set forth in instantly claims 21-29.

### ***Response to Arguments***

In response to Watanabe, the applicant argues on page 10 of the remarks, that Watanabe never discloses or suggests that the hydrophobic resin layer 24 is about 10-30 weight percent of the coating material.

The examiner disagrees. Watanabe teaches as mentioned above, that in the preferred embodiments the hydrophobic resin in the coating material is 0-75% by weight. This range completely encompasses the instantly claimed range. Furthermore, Watanabe teaches that the amount of binder is easily optimized depending upon the end use application. It was and still is the Examiners position that the amount of resin taught by Watanabe, to include those amounts instantly claimed, is well within the grasp of a routineer in the art and would have been an obvious modification.

The applicant further argues on page 10 that the reversible replacement of organic groups by hydroxyl groups will not result in a photocatalytical reduction of the corresponding self cleaning surface by about 0.1 microns or more per year.

First, this argument is merely an excerption from one working example of the entire teaching of Watanabe. This recitation is not indicative of the entire coating as a whole. "Applicant must look to the whole reference for what it teaches. Applicant cannot



merely rely on the examples and argue that the reference did not teach others." In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967).

It was and still is the examiners position that the instantly claimed degradation and chalking levels are inherent to the coating of Watanabe. The applicant never specifies a type of binder in the specification, and only generically references that hydrophobic resins are capable binders that undergo decomposition ([0023] of the instant specification). Since Watanabe teaches a hydrophobic resin, it can only be assumed by the examiner that this coating taught by Watanabe will have the same compositional characteristics as those coatings instantly taught and claimed.

A material and its properties are inseparable. Where the claimed and prior art products are produced by identical or substantially identical processes, the Patent and Trademark Office can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of the claimed product. Whether the rejection is based on "inherency" under 35 U.S.C. § 102, or "prima facie obviousness" under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the inability of the Patent and Trademark Office to manufacture products or obtain and compare prior art products. *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

The mere recitation of a newly discovered property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re Swinehart*, 439 F.2d 210, 212-13 (CCPA 1971).

This argument is merely attorney's assertions not supported by evidence on the record. It is noted that "the arguments of counsel cannot take the place of evidence in the record", *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). It is the examiner's position that the arguments provided by the applicant regarding that the reversible replacement of organic groups will not result in a reduction of binder instantly claimed. must be supported by a declaration or affidavit. As set forth in MPEP 716.02(g), "the reason for requiring evidence in a declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 24 and 18 U.S.C. 1001".

The applicant argues on page 11 that even though Watanabe discloses a coating comprising a hydrophobic resin a filler and a photocatalytic oxide, Watanabe's coating will not result in self cleaning surface. This argument again is merely attorney's arguments and is not supported by evidence on the record.

In regards to Murasawa, the applicant amended claim 15 to include specific binder amounts. This amendment provided new limitations and combinations that were not previously searched, and therefore necessitated a new rejection. In light of the amendment, the examiner finds that the instantly claimed binder is an obvious amount in Murasawa, as set forth in the rejections above.

The applicant argues on page 12 of the amendment that Murasawa teaches away from the presently claimed features by suggesting that the photocatalytic I degradation of the binding agent is to be eliminated completely if possible. And further

that in the working examples none of the compositions degraded at all, or in the comparative example Murasawa discloses a binding agent that almost completely degraded within only a few hours.

First, in regards to the applicants position on the working examples. These working examples do not include the absorbent (silica gel) taught by Murasawa, which will give unique properties to the coating, and therefore these working examples can not be used to define the invention of Murasawa as a whole. "Applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others." In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967).

Furthermore, these coatings were only measured for degradation after being exposed for 5 hours. The applicant is claiming a degradation of 0.1 microns or more per year. It was and still is the examiners position that since Murasawa teaches a coating with similar compositions to those instantly claimed, that the coating will behave in the same manner to those coatings instantly claimed (i.e. will exhibit the instantly claimed chalking levels and degradation levels).

The tests of 5 hours can not be indicative of the coating over a testing range of an entire year. And therefore the applicant has failed to show evidence that these inherent properties are not present in the coatings of Murasawa.

Furthermore, in regards to the comparative example, the applicant argues that the coating almost completely degraded in about 5 hours and this is no where near the instantly claimed range of 0.1 microns or more per year. The Examiner disagrees with

the applicants position. The instant claims set forth a degradation of more than 0.1 micron per year. If one were to measure the coating of the comparative example in one year it would fall within the instantly claimed range of more than 0.1 microns.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN C. LANGMAN whose telephone number is (571)272-4811. The examiner can normally be reached on Mon-Thurs 8:00 am - 6:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCL

/Timothy M. Speer/  
Primary Examiner, Art Unit 1794